CM2515CL 12

WHAT IS CLAIMED:

- 1. A portable, self-heating thermal cushion having a thermally insulated seating region, said cushion comprising a composite laminated structure, said structure comprising a backsheet, a topsheet and an intermediate layer comprising a heat generating material, said intermediate layer being in thermal contact with said seating region of said cushion, wherein said cushion is contacted with a seating surface, and wherein said seating region is of sufficient size to extend underneath the buttocks of the user to provide a heating region generally coextensive with said seating region for warming said buttocks.
- 2. The cushion of Claim 1, wherein said seating region has a contact area of at least about 200cm².
- 3. The cushion of Claim 1, wherein said intermediate layer has at least about 30% thermal contact with said seating region.
- 4. The cushion of Claim 1, wherein said thermal layer has thermal characteristics and heat transfer characteristics, said thermal and heat transfer characteristics providing a heating region, said thermal and heat transfer characteristics being selected to raise the temperature of said heating region by at least 10°C above ambient temperature for a period of at least about 45 minutes.
- 5. The cushion of Claim 4, wherein said cushion has a simulated-use temperature profile such that the temperature of at least about 50% of said heating region is raised by at least about 10°C above ambient temperature within about 15 minutes of the commencement of heat generation and wherein a plateau temperature of at least about 10°C above ambient temperature is maintained for a period of at least about 45 minutes from the commencement of heat generation.
- 6. The cushion of Claim 1, wherein said backsheet and said topsheet are secured to one another around a periphery of said seating region.
- 7. The cushion of Claim 1, further comprising a plurality of spaced reservoirs for holding said heat generating material and wherein the area of each of said reservoirs ranges from about 1 cm² to about 50 cm².

- 8. The cushion of Claim 7, wherein each of said reservoirs has a depth of less than about 2 cm.
- 9. The cushion of Claim 8, wherein each of said reservoirs has a capacity ranging from about 0.1 grams to about 100 grams.
- 10. The cushion of Claim 7, wherein said cushion has a reservoir to non-reservoir area ratio ranging from about 100:1 to about 1:100.
- 11. The cushion of Claim 1, wherein said heat generating material is a material capable of generating heat on exposure to air.
- 12. The cushion of Claim 11, wherein said heat generating material comprises from about 30% to about 80% by weight of iron powder, from about 3% to about 25% by weight of carbonaceous material comprising activated carbon, non activated carbon or a mixture thereof, from about 0.5% to about 10% by weight of a metal salt, from about 1% to about 40% by weight of water, and from about 0.1% to about 10% by weight of a reducing agent.
- 13. The cushion of Claim 11, wherein said topsheet comprises an air-permeable material effective in controlling the flow of air to said heat generating material
- 14. The cushion of Claim 1, wherein said heat generating material is a material capable of generating heat by the initiation of a phase change within said material.
- 15. The cushion of Claim 1, wherein said heat generating material comprises two or more reactive components capable of generating heat during mixing thereof.
- 16. The cushion of Claim 1, wherein said cushion further comprises a waterproof or water-resistant backsheet and/or topsheet.
- 17. The cushion of Claim 1, wherein said cushion comprises a separate layer of cushioning on the side of said intermediate layer opposite said seating region.
- 18. The cushion of Claim 1, wherein said backsheet comprises a thermally-insulating material.

19. The cushion of Claim 1, wherein said topsheet comprises a microporous laminated nonwoven film and wherein said film has a moisture vapour transmission rate ranging from about $100 \text{ g/m}^2/24$ hours to about $5000 \text{ g/m}^2/24$ hours.